In the Claims

Please amend the claims as follows. A complete set of pending claims is presented below, with insertions indicated by underlining and deletions indicated by strikethrough.

1. (Currently amended) An isolated polypeptide comprising an EphA3 HLA class II-binding peptide that consists of a fragment of an amino acid sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5 and SEQ ID NO:7 which binds an HLA class II molecule, wherein the fragment comprises the amino acid sequence of SEQ ID NO:53~~, or a functional variant thereof comprising 2 or fewer amino acid substitutions~~.

2. (Previously presented) The isolated polypeptide of claim 1, wherein the isolated polypeptide consists of a fragment of an amino acid sequence selected from the group consisting of SEQ ID NO:3, SEQ ID NO:5 and SEQ ID NO:7.

3. (Canceled)

4. (Currently amended) The isolated polypeptide of claim 1 wherein the fragment comprises an amino acid sequence selected from the group consisting of SEQ ID NO:51~~,~~ and SEQ ID NO:54~~, SEQ ID NO:62~~.

5. (Previously presented) The isolated polypeptide of claim 1, wherein the isolated polypeptide comprises an endosomal targeting signal.

6. (Canceled)

7. (Previously presented) The isolated polypeptide of claim 1 wherein the isolated polypeptide is non-hydrolyzable.

8.-14. (Canceled)

15. (Previously presented) An isolated nucleic acid encoding the polypeptide of claim 1, wherein the nucleic acid does not encode full length EphA3.

16.-20. (Canceled)

21. (Previously presented) A method for enriching selectively a population of T lymphocytes with T lymphocytes specific for an EphA3 HLA binding peptide comprising:

contacting a source of T lymphocytes which contains a population of T lymphocytes with an agent presenting a complex of the EphA3 HLA binding peptide contained in the isolated polypeptide of claim 1 and an HLA molecule in an amount sufficient to selectively enrich the population of T lymphocytes with the T lymphocytes specific for an EphA3 HLA binding peptide.

22.-51. (Canceled)

52. (Previously presented) An isolated antigen presenting cell which comprises a complex of an HLA molecule and the EphA3 HLA binding peptide contained in the isolated polypeptide of claim 1.

53. (Canceled)

54. (Previously presented) A vaccine comprising the isolated polypeptide of claim 1 and a pharmaceutically acceptable carrier.

55.-64. (Canceled)

65. (Previously presented) The isolated polypeptide of claim 5, wherein the endosomal targeting signal comprises an endosomal targeting portion of a polypeptide selected from the group consisting of human invariant chain Ii and LAMP-1.

66. (Previously presented) The isolated polypeptide of claim 7 wherein the isolated polypeptide is selected from the group consisting of polypeptide comprising D-amino acids, peptides comprising a -psi[CH_2NH]-reduced amide peptide bond, peptides comprising a -psi[$COCH_2$]-ketomethylene peptide bond, peptides comprising a -psi[CH(CN)NH]-(cyanomethylene)amino peptide bond, peptides comprising a -psi[$CH_2CH(OH)$]-hydroxyethylene peptide bond, peptides comprising a -psi[CH_2O]-peptide bond, and peptides comprising a -psi[CH_2S]-thiomethylene peptide bond.

67.-70. (Canceled)

71. (Currently amended) The isolated nucleic acid of claim 15, wherein the nucleic acid comprises a fragment of a nucleotide sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, and SEQ ID NO:52~~, and fragments of SEQ ID NO:52~~.

72. (Currently amended) The method of claim 21, wherein the agent is an antigen presenting cell ~~contacted with an EphA3 protein or an HLA class II binding fragment thereof~~.

73. (Previously presented) The method of claim 21 wherein the HLA molecule is an HLA-DR11 molecule.

74. (Previously presented) The method of claim 21, wherein the isolated polypeptide comprises an endosomal targeting portion of a polypeptide selected from the group consisting of human invariant chain Ii and LAMP-1.

75. (Previously presented) The isolated antigen presenting cell of claim 52 wherein the HLA molecule is an HLA-DR11 molecule.

76. (Previously presented) The vaccine of claim 54, further comprising an adjuvant.

77. (New) An isolated polypeptide comprising an EphA3 HLA class II-binding peptide that consists of the amino acid sequence of SEQ ID NO:62.

78. (New) The isolated polypeptide of claim 77, wherein the isolated polypeptide comprises an endosomal targeting signal.

79. (New) The isolated polypeptide of claim 78, wherein the endosomal targeting signal comprises an endosomal targeting portion of a polypeptide selected from the group consisting of human invariant chain Ii and LAMP-1.

80. (New) The isolated polypeptide of claim 77 wherein the isolated polypeptide is non-hydrolyzable.

81. (New) The isolated polypeptide of claim 80 wherein the isolated polypeptide is selected from the group consisting of polypeptide comprising D-amino acids, peptides comprising a -psi[CH_2NH]-reduced amide peptide bond, peptides comprising a -psi[$COCH_2$]-ketomethylene peptide bond, peptides comprising a -psi[CH(CN)NH]-(cyanomethylene)amino peptide bond, peptides comprising a -psi[$CH_2CH(OH)$]-hydroxyethylene peptide bond, peptides comprising a -psi[CH_2O]-peptide bond, and peptides comprising a -psi[CH_2S]-thiomethylene peptide bond.

82. (New) An isolated nucleic acid encoding the polypeptide of claim 77, wherein the nucleic acid does not encode full length EphA3.

83. (New) The isolated nucleic acid of claim 82, wherein the nucleic acid comprises a fragment of a nucleotide sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, and SEQ ID NO:6.

84. (New) A method for enriching selectively a population of T lymphocytes with T lymphocytes specific for an EphA3 HLA binding peptide comprising:

contacting a source of T lymphocytes which contains a population of T lymphocytes with an agent presenting a complex of the EphA3 HLA binding peptide contained in the isolated polypeptide of claim 77 and an HLA molecule in an amount sufficient to selectively enrich the

population of T lymphocytes with the T lymphocytes specific for an EphA3 HLA binding peptide.

85. (New) The method of claim 84 wherein the HLA molecule is an HLA-DR11 molecule.

86. (New) The method of claim 84, wherein the isolated polypeptide comprises an endosomal targeting portion of a polypeptide selected from the group consisting of human invariant chain Ii and LAMP-1.

87. (New) An isolated antigen presenting cell which comprises a complex of an HLA molecule and the EphA3 HLA binding peptide contained in the isolated polypeptide of claim 77.

88. (New) The isolated antigen presenting cell of claim 87 wherein the HLA molecule is an HLA-DR11 molecule.

89. (New) A vaccine comprising the isolated polypeptide of claim 77 and a pharmaceutically acceptable carrier.

90. (New) The vaccine of claim 89, further comprising an adjuvant.